AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for generating a first plurality of output data values by transforming a plurality of input data values using a computer, the first plurality of output data values approximating a second plurality of output data values, the second plurality of output data values generated by applying a linear transform to the plurality of input data values, the method comprising at least one step, the step being one of the following:

rearranging at least one data value in a plurality of current input data values;

negating at least one data value in the plurality of current input data values;

modifying at least one data value in the plurality of current input data values, each modified data value generated by applying a linear combination of unmodified values in the plurality of input data values to the at least one data value, the linear combination comprised of an integer generated in a reproducible manner, the integer being from one of a group consisting of a rounded integer and a converted integer; and

a step which is equivalent to a successive combination of one or more steps of the preceding three types,

wherein the linear transform is a fixed finite-dimensional linear transform, and

the linear transform is one of a plurality of color transforms.

2. (Original) The method of Claim 1 wherein the first plurality of output data values are integers if the plurality of input data values are integers.

3. (Original) The method of Claim 2 wherein the plurality of input data values can be reconstructed exactly from the first plurality of output data values.

4. (Original) The method of Claim 1 wherein the linear transform has a determinant, the determinant being invertible as one of a group consisting of an integer and an integer Laurent polynomial.

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5. (Original) The method of Claim 1 wherein the linear transform has a determinant, the determinant being invertible as one of a group consisting of a real number and a real Laurent polynomial, and the method further comprising rescaling at least one of a plurality of bands in the linear transform.

6. (Canceled)

7. (Currently amended) The method of ~~Claim 6~~ Claim 1 wherein the linear transform has a property that when applied to the plurality of input data values, the plurality of input data values being zero except at one location, the second plurality of output data values generated by applying the linear transform are identical to the plurality of input data values, and the method having the same property.

8. (Currently amended) The method of ~~Claim 6~~ Claim 1 wherein the plurality of input data values includes an input integer plurality and the second plurality of output data values includes an output integer plurality, the linear transform mapping an integer multiple of the input integer plurality to an integer multiple of the integer output plurality, the integer multiple of the input integer plurality corresponding to the integer multiple of the integer output plurality, and the method mapping ~~mapping~~ the integer multiple of the integer input plurality to the corresponding integer multiple of ~~theinteger~~ the integer output plurality.

9. (Currently amended) The method of ~~Claim 6~~ Claim 1 wherein the linear transform is one of a plurality of RGB-to-YCbCr color transforms.

10. (Currently amended) The method of ~~Claim 6~~ Claim 1 wherein the linear transform is a RGB-to-YIQ color transform.

11. (Canceled)

12. (Currently amended) The method of ~~Claim 11~~ Claim 39 wherein the step of rearranging at least one of the plurality of input data values comprises permuting a plurality of

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bands, the plurality of bands including the plurality of input data values, and wherein the step of modifying the at least one of the plurality of input data values further includes permuting the plurality of bands after adding to one of the bands.

13. (Currently amended) The method of ~~Claim 1~~ Claim 39 wherein the linear transform is a wavelet transform.

14. (Currently amended) The method of Claim 13 wherein the linear transform has a property that when applied to the plurality of input data values, the plurality of input data values being zero except at one location, the second plurality of output data values generated by applying the linear transform are identical to the plurality of input data values, and the method having the same property.

15. (Currently amended) The method of Claim 13 wherein the plurality of input data values includes an input integer plurality and the second plurality of output data values includes an output integer plurality, the linear transform mapping an integer multiple of the input integer plurality to an integer multiple of the integer output plurality, the integer multiple of the input integer plurality corresponding to the integer multiple of the integer output plurality, and the method mapping ~~mapping~~ the integer multiple of the integer input plurality to the corresponding integer multiple of ~~theinteger~~ the integer output plurality.

16. (Original) The method of Claim 13 wherein the step of rearranging the at least one data value is performed on only adjacent data values in the plurality of input data values.

17. (Currently amended) The method of Claim 13 wherein the step of modifying the at least one data value is performed [[on]] using only adjacent data values in the plurality of input data values to modify the at least one data value.

18. (Original) The method of Claim 13 wherein the wavelet transform is a 9-7 wavelet transform.

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19-38. (Canceled)

39. (New) A method for generating a first plurality of output data values by transforming a plurality of input data values using a computer, the first plurality of output data values approximating a second plurality of output data values, the second plurality of output data values generated by applying a linear transform to the plurality of input data values, the method comprising the step of:

modifying at least one data value in the plurality of current input data values, each modified data value generated by applying a linear combination of unmodified values in the plurality of input data values to the at least one data value, the linear combination comprised of an integer generated in a reproducible manner, the integer being from one of a group consisting of a rounded integer and a converted integer;

wherein the linear transform is a fixed finite-dimensional linear transform, and

wherein the step of modifying the at least one data value in the plurality of current input data values comprises:

successively sweeping through a plurality of bands of input data values in a first direction;

successively adding to each band during each successive sweep in the first direction the linear combination of unmodified values in the plurality of input data values, the linear combination being a rounded linear combination of the plurality of input data values in preceding bands;

successively sweeping through a plurality of bands in a second direction, the second direction being different than the first direction;

successively adding to each band during each successive sweep in the second direction the linear combination of unmodified values in the plurality of input data values, the linear

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combination being a rounded linear combination of the plurality of input data values in preceding bands; and

adding to one of the bands the linear combination of unmodified values in the plurality of input data values, the linear combination being a rounded linear combination of the plurality of input data values in all remaining bands.

40. (New) A method for generating a first plurality of output data values by transforming a plurality of input data values using a computer, the first plurality of output data values approximating a second plurality of output data values, the second plurality of output data values generated by applying a linear transform to the plurality of input data values, the method comprising at least one step that is equivalent to a successive combination of one or more steps of the following types:

rearranging at least one data value in a plurality of current input data values;

negating at least one data value in the plurality of current input data values; and

modifying at least one data value in the plurality of current input data values, each modified data value generated by applying a linear combination of unmodified values in the plurality of input data values to the at least one data value, the linear combination comprised of an integer generated in a reproducible manner, the integer being from one of a group consisting of a rounded integer and a converted integer.

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